

AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [16] of the originally filed patent application with the following rewritten paragraph:

Figure 2 shows an exemplary array arranged in a RAID 6 system configuration; and

Please replace paragraph [17] of the originally filed patent application with the following rewritten paragraph:

Figure 3 depicts an exemplary format arrangement of n data sectors and c code sectors according to the present invention; and

Please insert the following new paragraph between paragraph [17] of the originally filed patent application and the heading "DETAILED DESCRIPTION OF THE INVENTION" appearing on page 5 of the originally filed patent application:

Figure 4 depicts n data sectors and the c redundancy sectors that are written together on a single storage unit.

Please replace paragraph [19] of the originally filed patent application with the following rewritten paragraph:

Figure 2 shows an exemplary array 200 of six storage units, such as HDDs, arranged in a RAID 6 system configuration. For the exemplary RAID 6 system configuration shown in Figure 2, parity is calculated based on data blocks arranged horizontally across storage units 0-6, similar to a RAID 5 system configuration, with a second set of parity that is also calculated based on data blocks arranged horizontally across the storage units. The first horizontal parity block is calculated, for example, as the XOR of the data blocks. The second horizontal parity block can, for example, be based on a Reed-Solomon code. Specifically, parity block P0 is based on data blocks D0-D3. Parity block P1 is also based on data blocks D0-D3. Parity blocks P2 and P3 are based on data blocks D4-D7. Parity blocks P4 and P5 are based on data blocks D8-D11. Parity blocks P6 and P7 are based on data blocks D12-D15. Parity blocks P8 and P9 are based on data blocks D16-D19. Parity blocks P10-P11 are based on data blocks D20-D24. An array controller 210 is commonly connected to all storage units in array 200. Array controller 210

communicates with other controllers and host systems (not shown) over interface 211. Array controller 210 may be designed as a hardware and/or a software controller.

Please replace paragraph [20] of the originally filed patent application with the following rewritten paragraph:

According to the invention, a segment of n data sectors is associated with a set of c code (correction code or SPIDRE code) sectors. Figure 3 depicts an exemplary format arrangement of n data sectors and c code sectors according to the present invention. The n data sectors and the c redundancy sectors are written together on a single storage unit, such as storage unit Disk 0A0 in Figure 2. (Also see Figure 4.) The c sectors protect against uncorrectable media errors up to c sectors within the given data segment. There is no requirement that the n data sectors and the c redundancy sectors be kept separate. By keeping them separate, however, normal read operations are simple and fast.